

**IN THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Claims 1-20 (Canceled):**

**Claim 21 (New):** A method of measuring an AC residual image in a display panel, comprising:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b(V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is increased;

a third step of driving the display panel for a predetermined period with a predetermined signal voltage  $V_{max}$ ,

a fourth step of measuring a brightness  $B_a(V_{sig})$  of the display panel, while the signal voltage  $V_{sig}$  applied thereto is decreased; and

a fifth step of obtaining a value of AC residual image  $\Delta B(V_{sig})$  by the following formula:

$$\Delta B(V_{sig}) (\%) = [B_a(V_{sig}) - B_b(V_{sig})] / B_b(V_{sig}).$$

**Claim 22 (New):** A method according to claim 21, wherein the display panel is driven by pure AC driving at the third step.

**Claim 23 (New):** A method according to claim 21, wherein the first and the third steps are conducted at 55°C.

**Claim 24 (New):** A method according to claim 22, wherein the first and the third steps are conducted at 55°C.

**Claim 25 (New):** A liquid crystal display device with an oriented film, in which the oriented film is selected through a method of measuring AC residual image which comprises:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b(V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is increased;

a third step of driving the display panel for a predetermined period with predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness  $B_a(V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is decreased; and

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B(V_{sig}) (\%) = [B_a(V_{sig}) - B_b(V_{sig})] / B_b(V_{sig}).$$

**Claim 26 (New):** A liquid crystal display device according to claim 25, wherein the display panel is driven by pure AC driving at the third step.

**Claim 27 (New):** A liquid crystal display device according to claim 25, wherein the first and the third steps are conducted at 55°C.

**Claim 28 (New):** A liquid crystal display device according to claim 26, wherein the first and the third steps are conducted at 55°C.

**Claim 29 (New):** A liquid crystal display device according to claim 25, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 30 (New):** A liquid crystal display device according to claim 26, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 31 (New):** A liquid crystal display device according to claim 28, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 32 (New):** A display device in which an AC residual image  $\Delta B (V_{sig})$  measured by a following method is less than 8%, wherein the method comprises:

- a first step of stabilize a display panel;
- a second step of measuring a brightness  $B_b (V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is increased;
- a third step of driving the display panel for 30 minutes with a predetermined signal voltage  $V_{max}$ ;
- a fourth step of measuring a brightness  $B_a (V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is decreased; and
- a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B (V_{sig}) (\%) = [B_a (V_{sig}) - B_b (V_{sig})] / B_b (V_{sig}).$$

**Claim 33 (New):** A display device according to claim 32, wherein the display panel is driven by pure AC driving at the third step.

**Claim 34 (New):** A display device according to claim 32, wherein the first and the third steps are conducted at 55°C.

**Claim 35 (New):** A display device according to claim 33, wherein the first and the third steps are conducted at 55°C.

**Claim 36 (New):** A liquid crystal display device with an oriented film, where an AC residual image  $\Delta B (V_{sig})$  measured by a following method is less than 8%, wherein the method comprises:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b (V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is increased;

a third step of driving the display panel for 30 minutes with a predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness  $B_a (V_{sig})$  of the display panel, while a signal voltage  $V_{sig}$  applied thereto is decreased; and

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B (V_{sig}) (\%) = [B_a (V_{sig}) - B_b (V_{sig})] / B_b (V_{sig}).$$

**Claim 37 (New):** A liquid crystal display device according to claim 36, wherein the display panel is driven by pure AC driving at the third step.

**Claim 38 (New):** A liquid crystal display device according to claim 36, wherein the first and the third steps are conducted at 55°C.

**Claim 39 (New):** A method of measuring an AC residual image in a display panel, comprising:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b(V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ;

a third step of driving the display panel for a predetermined period with a predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness  $B_a(V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ; and

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B(V_{sig}) (\%) = [B_a(V_{sig}) - B_b(V_{sig})] / B_b(V_{sig}).$$

**Claim 40 (New):** A method according to claim 39, wherein the display panel is driven by pure AC driving at the third step.

**Claim 41 (New):** A method according to claim 39, wherein the first and the third steps are conducted at 55°C.

**Claim 42 (New):** A method according to claim 40, wherein the first and the third steps are conducted at 55°C.

**Claim 43 (New):** A liquid crystal display device with an oriented film, wherein the oriented film is selected through a following method of measuring an AC residual image, comprising:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b(V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ;

a third step of driving the display panel for a predetermined period with a predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness of  $B_a(V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ;

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B(V_{sig}) (\%) = [B_a(V_{sig}) - B_b(V_{sig})] / B_b(V_{sig}).$$

**Claim 44 (New):** A liquid crystal display device according to claim 43, wherein the display panel is driven by pure AC driving at the third step.

**Claim 45 (New):** A liquid crystal display device according to claim 43, wherein the first and the third steps are conducted at 55°C.

**Claim 46 (New):** A liquid crystal display device according to claim 44, wherein the first and the third steps are conducted at 55°C.

**Claim 47 (New):** A liquid crystal display device according to claim 43, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 48 (New):** A liquid crystal display device according to claim 44, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 49 (New):** A liquid crystal display device according to claim 46, wherein the oriented film selected has an AC residual image value less than 8%.

**Claim 50 (New):** A display device of an AC residual image  $\Delta B (V_{sig})$  measured by a following method is less than 8%, wherein the method comprises:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b (V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ;

a third step of driving the display panel for 30 minutes with a predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness  $B_a (V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ; and

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B (V_{sig}) (\%) = [B_a (V_{sig}) - B_b (V_{sig})] / B_b (V_{sig}).$$

**Claim 51 (New):** A display device according to claim 50, wherein the display panel is driven by pure AC driving at the third step.

**Claim 52 (New):** A display device according to claim 50, wherein the first and the third steps are conducted at 55°C.

**Claim 53 (New):** A display device according to claim 51, wherein the first and the third steps are conducted at 55°C.

**Claim 54 (New):** A liquid crystal display device with an oriented film, wherein an AC residual image  $\Delta B (V_{sig})$  measured by a following method is less than 8%, wherein the method comprises:

a first step of stabilize a display panel;

a second step of measuring a brightness  $B_b (V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ;

a third step of driving the display panel for 30 minutes with a predetermined signal voltage  $V_{max}$ ;

a fourth step of measuring a brightness  $B_a (V_{sig})$  of the display panel at many signal voltages  $V_{sig}$ ; and

a fifth step of obtaining a value of the AC residual image by the following formula:

$$\Delta B (V_{sig}) (\%) = [B_a (V_{sig}) - B_b (V_{sig})] / B_b (V_{sig}).$$

**Claim 55 (New):** A liquid crystal display device according to claim 54,  
wherein the display panel is driven by pure AC driving at the third step.

**Claim 56 (New):** A liquid crystal display device according to claim 55,  
wherein the first and the third steps are conducted at 55°C.